

**Fixed Air Monitoring Stations
PR-HQ-04-11505
Questions and Answers 39
Posted August 27, 2004**

Q39. In review of the specifications, it appears that the power requirements under C.1.2.b, the UPS requirements under C.1.2.e, and the weight requirements of 150lbs under C.10.5 are not compatible. In order to meet the specifications for UPS power backup listed in C.1.2.b, the UPS would need to weigh in excess of 60 lbs. Additionally, the recommended electrical service for this size UPS would be a 20A 120V. The UPS has a maximum voltage draw of 16.7A. UPS Weight and Power Requirements Issues Specifications call for an Uninterruptible Power Supply to be provided for all components except the high volume air sampler motor. The UPS is required to supply power to all components for at least one hour.

Laptop computer	90 watts
MCA	40 watts
Modem	18 watts
Iridium	40 watts
Datalogger	30 watts
Cellular Modem	20 watts (estimated)

Total Wattage	238 watts
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According to a popular UPS manufacturer, a 1500VA UPS will provide 200 watts of power for approximately 32 minutes. A UPS of this size weighs 26 lbs. In order to provide 200 watts of power for 1 hour, the UPS would need to be approximately 3000 VA. A UPS of this size weighs 66 lbs.

In addition to the weight issues in regards to the UPS, a large UPS also exceeds the power requirements listed in C.1.2.b. A 3000VA UPS has a maximum current of 16.7A which exceeds the 15A maximum allowable and the 10A continuous. If the UPS was reduced to a 1500VA UPS, then the maximum current draw could be as high as 15A. As an example, a typical 500VA UPS (commonly seen as a desktop computer UPS), has a maximum power draw of 12A and weighs approximately 13 lbs. A UPS of this size will provide only 8 minutes of power at 200 watts. In order to last one hour, a 500VA UPS could only supply about 30 watts of power.

Will the EPA please evaluate these facts and provide a response to these issues?

A39. EPA acknowledges that a UPS with the power capacity discussed in the question would make it very difficult if not impossible to meet the weight limitation, but did not anticipate the use of components with such large power requirements. EPA considers the total weight limitation to be more important than how long the UPS will provide power. EPA will consider proposals that take exception to the one-hour UPS power requirement if necessary to comply with the weight limitation, provided that no less than 5 minutes of UPS power is provided.

